



EPI WATCH

Monthly Epidemiology Newsletter



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**Division of Disease Control
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Disease Reporting
To report diseases and clusters of illness:
Phone: (727) 824-6932
Fax: (727) 484-3865
(excluding HIV/AIDS)

To report HIV/AIDS by mail:
Surveillance Room 3-138
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COVID mRNA Vaccines Real-World Effectiveness is Promising

by Daniel Joyce

A recent study done by the Centers for Disease Control and Prevention (CDC) shows the real-world effectiveness of the Pfizer-BioNTech and Moderna mRNA COVID-19 vaccines in preventing both symptomatic and asymptomatic infections. The study enrolled healthcare workers, first responders, and essential workers in six states for a 13-week period. These are all groups that are exposed to the virus due to their occupations. The study participants self-collected nasal swabs each week for RT-PCR testing.

Participants were considered fully vaccinated two weeks following the second dose of either mRNA vaccine and partially vaccinated two weeks following their first dose of either mRNA vaccine. Among fully vaccinated participants, SARS-CoV-2 infection was reduced by 90%. Among participants receiving a single dose of either vaccine the risk of infection was reduced to 80%. Among the 3,950 participants, 10.7% of infections were asymptomatic and majority of infections (58%) were detected by laboratory testing prior to symptom development.

This study is significant because it measured effectiveness against infections including those without symptoms, while the clinical trials evaluated effectiveness against COVID-19 disease. It showed that the two mRNA vaccines reduce the risk of all SARS-CoV-2 infections, not just the symptomatic ones. This study is also significant because it provides encouraging news about partial vaccinations. One dose vaccine efficacy in the study was 80%, which is consistent with previous studies of the Pfizer-BioNTech vaccines done in the United Kingdom and Israel. Overall, the study provides strong evidence of both Moderna and Pfizer-BioNTech mRNA vaccines in preventing SARS-CoV-2 infections in real-world conditions.

As of April 12, 11,265,969 doses of COVID-19 vaccinations have been given to persons in Florida. Of those, 4,447,965 have completed the series and 2,843,455 have received only their first dose. 473,416 have received the Johnson & Johnson vaccine while the rest have been Pfizer or Moderna. Persons receiving one dose of the Johnson & Johnson vaccine are considered to have completed the series.

As of April 12, in Pinellas County a total of 563,248 doses of the COVID-19 vaccine have been given. Of those, 357,602 have completed the series and 134,070 have received only their first dose. 17,886 have received the Johnson & Johnson vaccine while the rest have been Pfizer or Moderna.

For more information on the CDC study, please visit [CDC Real-World Study Confirms Protective Benefits of mRNA COVID-19 Vaccines](#)

For more information on Florida's vaccination progress, please visit [Florida's Vaccine Report](#)

National Public Health Week 2021

by Alissa Brown, MPH

April 5-11, 2021 is National Public Health Week, which highlights the contribution of Public Health Professionals. The Public Health professionals at the Florida Department of Health in Pinellas County (DOH-Pinellas) focus on ensuring all Pinellas County residents are protected from emerging and re-emerging diseases. In 2020, all DOH-Pinellas Public Health professionals had to considerably adjust their daily operations to support the unexpected COVID-19 pandemic for which they have trained and prepared. During this unprecedented time, they have worked tirelessly; this week brings more meaning to Public Health as we see the hard work and dedication put forth.

This year's theme is "Building Bridges to Better Health". COVID-19 has put a spotlight on the many communities where improvement is still needed for a safer and healthier way of living. DOH-Pinellas has created a team dedicated to addressing the health equity of its residents. The health equity team has partnered with local houses of worship and other locations in the community to administer COVID-19 vaccinations. In the last week of March, DOH-Pinellas completed four outreaches targeting underserved communities and approximately 8,000 residents were vaccinated at these events. As we continue to address this pandemic and all other emerging diseases, let's continue the good course to protecting the public.



NATIONAL PUBLIC HEALTH WEEK

AN INITIATIVE OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

Herd Immunity: How Vaccinating Children Against COVID-19 Can End the Pandemic^{1,2,3}

by Austin Morley-Sloan, MSMS, BSPH

Over the last year, rising COVID-19 case counts, hospitalizations, deaths, and socioeconomic upheaval from lockdowns shifted our hopes towards a vaccine being our way out of the pandemic. Earlier this year, as vaccines were rolled-out to our highest risk individuals, we began to look forward to returning to normal life. Of the available COVID-19 vaccines, Pfizer is authorized for use in those 16 years and older, while Moderna and Johnson&Johnson are authorized for use in those 18 years and older. Since nearly a quarter of the United States population is under 18 years old, these vaccine manufacturers have sought to provide rigorously tested, safe, and efficacious COVID-19 vaccines for children. The benefits of vaccinating children are both direct and indirect. Directly, the vaccines provide protection against severe disease and multisystem inflammatory syndrome (MIS-C). Indirectly, these vaccines protect others by reducing spread. These indirect benefits can also decrease the stress put on families by the pandemic and encourage children to return to activities, such as school and sports, that provide them with an opportunity to socialize with people outside of their families.

Not only do parents and caregivers require robust safety data, including pediatric-focused studies and post licensure monitoring for potential rare outcomes - they need societal decision making that prioritizes their children's safety. In the context of COVID-19, current data suggests that SARS-CoV-2 infections occur in children at a lower rate and typically without developing severe outcomes. Once the adult population is fully vaccinated, then we will need to consider how to remove or limit transmission in the pediatric population to effectively protect at-risk adults with herd immunity.

To address this issue – Pfizer, Moderna, and Johnson&Johnson have all begun implementing COVID-19 vaccine clinical trials specifically to demonstrate proper dosing, safety, and efficacy in these pediatric populations. In these trials, it will be critical for these manufacturers to maintain transparency and a rigorous scientific vetting process. Pfizer recently released preliminary data from their Phase 3 clinical trial of 2,260 participants aged 12-15 years old. This data suggests 100% efficacy in a small sample size with a robust immunogenic response and tolerable safety profile compared to previous trial data in those 16-25 years of age. Also, Pfizer is enrolling for a Phase 1/2/3 trial in children 6-months to 11 years old. Following suit, Moderna has announced the beginning of their Phase 2/3 trial of 6,750 pediatric participants aged 6-months to 12 years to assess the dosing, safety, and efficacy of their vaccine in children. As data is released in the coming months, the scientific community, FDA, CDC, and ACIP have a duty to parents, families, and communities to demonstrate reputable scientific practice that holds safety and efficacy of these vaccines in children to the highest standards.

References

¹<https://www.nejm.org/doi/full/10.1056/NEJMp2034765>

²<https://www.pfizer.com/news/press-release/press-release-detail/pfizer-biontech-announce-positive-topline-results-pivotal>

³<https://investors.modernatx.com/news-releases/news-release-details/moderna-announces-first-participants-dosed-phase-23-study-0>

Select Reportable Diseases in Pinellas County

Disease	Pinellas		YTD Total		Pinellas Annual Totals		
	March 2021	March 2020	Pinellas 2021	Florida 2021	2020	2019	2018
A. Vaccine Preventable							
Measles	0	0	0	0	0	1	7
Mumps	0	0	0	3	1	7	10
Pertussis	0	1	0	11	8	27	32
Varicella	0	1	4	61	18	33	67
B. CNS Diseases & Bacteremias							
Creutzfeldt-Jakob Disease (CJD)	0	0	0	2	0	3	1
Meningitis (Bacterial, Cryptococcal, Mycotic)	0	0	0	17	6	7	9
Meningococcal Disease	0	0	0	4	3	1	1
C. Enteric Infections							
Campylobacteriosis	13	14	55	692	252	310	264
Cryptosporidiosis	1	2	3	65	44	64	34
Cyclosporiasis	0	1	0	2	9	28	4
<i>E. coli</i> Shiga Toxin (+)	0	0	1	95	10	24	15
Giardiasis	2	4	7	125	28	52	41
Hemolytic Uremic Syndrome (HUS)	0	0	0	2	0	1	0
Listeriosis	0	0	0	7	2	2	1
Salmonellosis	10	9	20	746	176	201	233
Shigellosis	3	6	9	93	19	22	40
D. Viral Hepatitis							
Hepatitis A	0	0	0	79	4	377	113
Hepatitis B: Pregnant Woman	0	1	0	70	40	24	14
Hepatitis B, Acute	5	2	15	125	103	72	52
Hepatitis C, Acute	7	8	17	275	18	82	40
E. Vector Borne/ Zoonoses							
Animal Rabies	0	0	0	19	1	2	1
Rabies, possible exposure	14	8	41	796	128	128	130
Chikungunya Fever	0	0	0	0	0	0	0
Dengue	0	0	0	7	0	3	0
Eastern Equine Encephalitis	0	0	0	0	0	0	0
Lyme Disease	0	0	0	28	11	22	14
Malaria	0	0	0	2	2	5	3
West Nile Virus	0	0	0	1	0	0	0
Zika Virus Disease	0	0	0	0	0	3	2
F. Others							
Chlamydia	369	325	1022	n/a	3982	4588	4422
Gonorrhea	161	138	485	n/a	1640	1537	1439
Hansen's Disease	0	0	0	3	0	0	0
Legionellosis	2	2	12	165	35	43	37
Mercury Poisoning	0	0	1	2	1	1	1
Syphilis, Total	43	36	125	n/a	469	479	438
Syphilis, Primary and Secondary	20	17	56	n/a	224	213	190
Syphilis, Early Latent	14	13	38	n/a	161	191	158
Syphilis, Congenital	1	0	1	n/a	5	6	2
Syphilis, Late Syphilis	8	6	30	n/a	89	69	88
Tuberculosis	0	0	6	n/a	24	23	33
<i>Vibrio</i> Infections	0	1	0	21	12	18	6

*YTD up to March 31, 2021. n/a = not available at this time

Reportable diseases include confirmed and probable cases only. All case counts are current and provisional. Data is collected from the Merlin Reportable Disease database, surveillance systems maintained at the Florida Department of Health in Pinellas County, and Florida CHARTS <http://www.floridacharts.com/charts/default.aspx>. STD data in STARS is continually updated. Please note, data from the previous month takes up to an additional month or more to be correctly updated.